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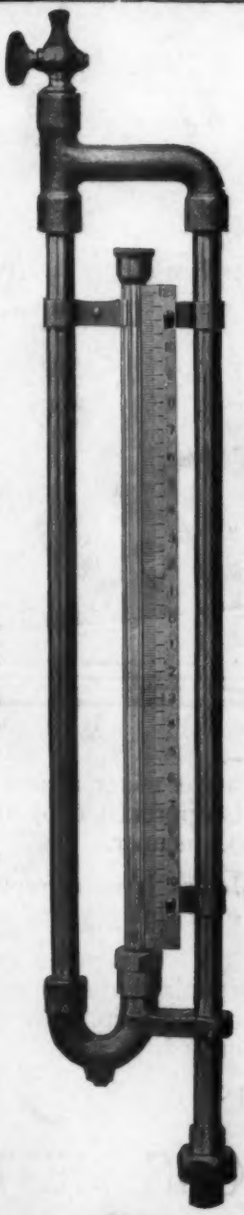

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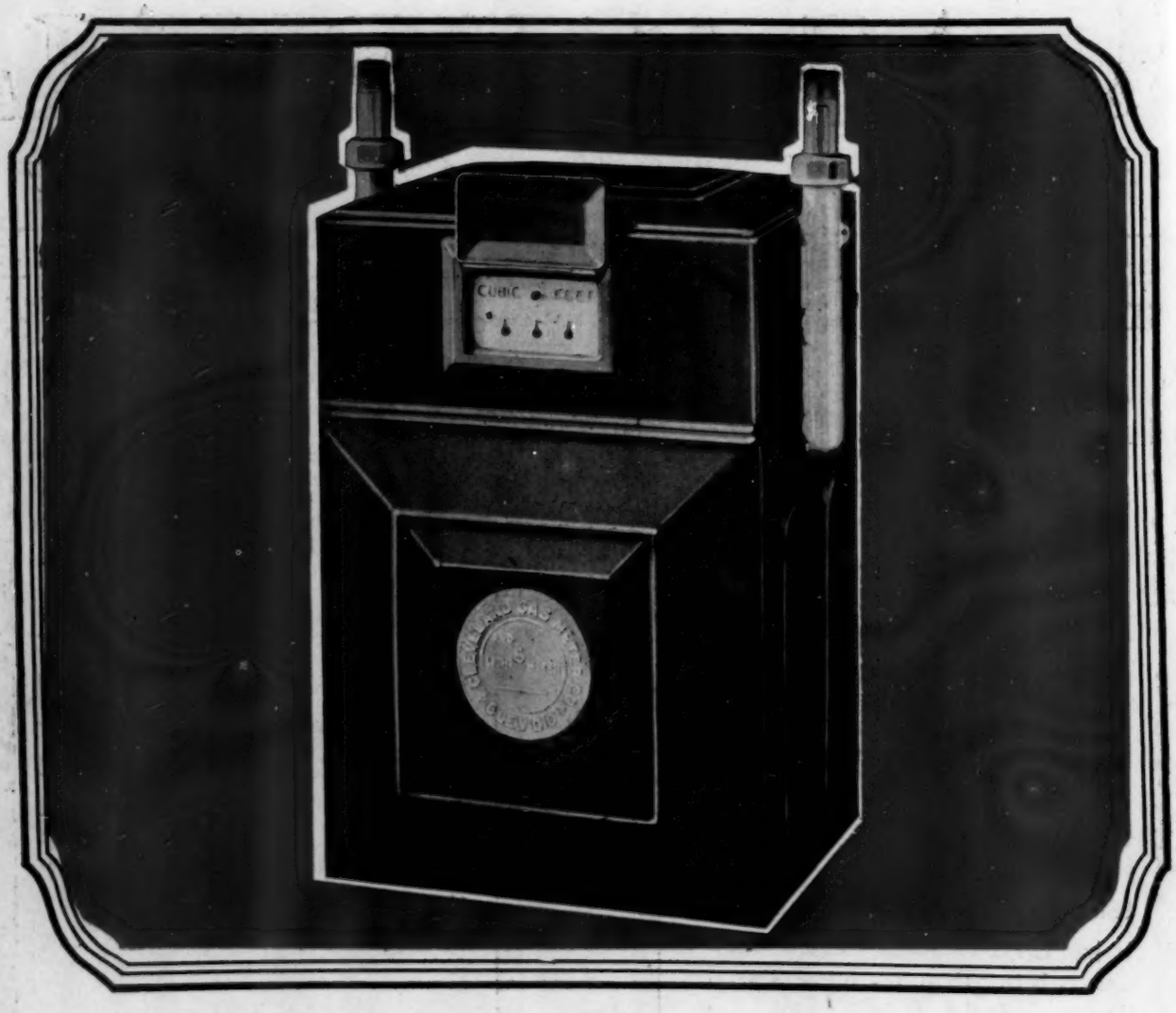
Advertising Index, Page 58

Index to Contents, Page 4



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Contents of This Issue

Office Methods in Gas Companies—III. Collection Procedure —G. L. Harris 183
Fixed Capital Records—H. C. Davidson 186
Building Sales Through Window Displays—Frank H. Williams 190
High Pressure Gas Regulation—Otto Goldkamp 191
Advertising Space Size—John T. Bartlett 194
As the Journal Views It 195
Public Utility Investments
The Gas Office
How Gas Is Used in Refrigeration 196
Progress in Gas Technology 197
Industrial Gas Lesson No. 134 199
News of the Gas Industry 201

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Office Methods in Gas Companies

III. Collection procedure

G. L. Harris

THE Collection Department is so vital to the gas company that it deserves particularly careful consideration in our discussion of office methods. Collecting is now recognized as being a distinct and eminently worth while profession, and not merely as a stepping stone to some other more favored position. No longer is the Collection Department merely a place where form notices are sent out, and where the unpleasant job of cutting off service originates. The members of the Collection Department no longer consider themselves the natural antagonists of everyone with whom they deal.

The gas companies have come to recognize that there are great possibilities for securing good will and creating friends among their customers through the Collection Department, without in any way neglecting the interests of the company.

Tremendous Possibilities for Trouble

The collection of delinquent accounts contains tremendous possibilities for trouble if it is improperly handled. Yet we would repeat that it also has very definite possibilities for good will. The collection procedure always has behind it the mailed fist of the threat to cut off the service or to repossess property. But the mailed fist must be hidden in a glove of velvet.

The employees who meet the public as the collecting agents of the gas company must be far more than mere collectors. They must be gentlemen, always. They must be refined, clean cut, well dressed, scrupulously polite, because every collection activity means direct contact with the public. And they must be backed up by every resource at the company's command.

Every activity of the Collection Department is so closely interwoven with the organization of one or more of the other departments of the company that it is impossible to consider any office method or routine in the Collection Department as a separate unit of organization.

Intimate Connection With Other Departments

The collection of delinquent service accounts involves intimate co-operation with the Application Department and with the Consumers' Accounting Department.

The Application Department must anticipate the needs of the Collection Department at the time the original application for service is accepted. Credit notes taken at this time, especially if service is installed without a deposit, may help in collecting a delinquent account later on.

The Consumers' Account Department must keep the Collection Department informed at all times. Nothing is more tragic than the pursuance of collection proceedings after a bill has been paid.

But the Collection Department must have close co-operation in still other avenues. In collecting delinquent merchandise accounts help must be looked for from the Sales Department, and from the General Auditing Department.

With the proper cooperation from inside the company, much of the collection routine may be purely mechanical detail. But this mechanical detail is simple and easy only so long as it is perfectly handled. When an error is made, this detail may assume tremendous importance in the customer relations of the company. Therefore the work of the

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Editor's Note: This is the third of a series of articles by Mr. Harris on "Office Methods in Gas Companies." The fourth article will appear in an early issue.

Collection Department must be perfectly planned and must be safeguarded by accurate checking with the most up-to-date methods and equipment available. It must be handled with tact, with firmness, with courtesy, with discretion, and with speed, but above all with accuracy.

Collection of Delinquent Accounts

As we have indicated above, there are two general classes of collections in the gas company, namely, the collecting of service accounts, and the collecting of merchandise accounts.

The routine for collecting delinquent service accounts must be absolutely foolproof. Of course the company wants the customer's good will. It never wants to discontinue his service. But back of the routine set up for handling these collections there must always and primarily be the protection of the interests of the company.

Other office routine in gas companies may vary widely because of differences in commodities and differences in company organization. But the collection of delinquent accounts presents a problem of such general uniformity that a more or less specific plan can be set forth that can be adapted to a company of any size or type with a minimum of change.

Reporting Account Delinquent

An account is usually reported as delinquent on the fifth day after the last discount date for that account. In a company which has continuous billing there is, therefore, a delinquent list for practically every day in the month.

The Collection Department must start proceedings at once, but it must make an accurate check every day, or even several times every day, to make sure that a delinquent name is removed from the list as soon as the account is paid.

And if all collection efforts fail, if the service must finally be cut off and the account charged off, then the delinquent customer should be listed permanently where every application for service can be checked against his name.

Gas companies are generally using visible equipment for these delinquent lists. Cards for a visible list are prepared in the Customers' Accounting Department and are filed in the Collection Department so that the customer's name, address, folio reference, due date, and the amount due are instantly visible. The old style blind card file is not satisfactory, nor is a list of names as good as a visible file. The former hides the cards, and the latter soon becomes marked up and hard to refer to.

Filing Cards

Delinquent cards are best filed by Block or Division, and under each division alphabetically by name. It must be possible to insert or remove cards in this file easily, because the list is constantly changing. To the gas company which does not now have a visible delinquent list we recommend that the advantages of this type of equipment be investigated.

Each day the paid stubs of all bills, which are five or more days over-due, should be sent to the Collection Department before being posted to the customers' credit. These stubs are checked against the delinquent list, and the names of the paid accounts are removed. The removal of a name from the delinquent list should automatically stop collection proceedings on the account paid.

Let us now consider the details of the collection procedure.

The "First Notice"

The "First Notice" should be mailed on the same day the delinquent notification is received. Care must be taken here not to send this notice to a customer whose service is being investigated because of a complaint. In our article on Complaint Procedure we explained how this is accomplished.

On the third day, or in some companies on the fifth day after the sending of the "First Notice," the "Last Notice" is sent—provided the delinquent list shows that the account is still unpaid, and provided it is not under investigation.

On the fifth or sixth day following the sending of the "Last Notice" a collector should call on the customer with a bill for the unpaid account. If he is unable to see the customer, he should leave a notice that the service is about to be cut off. Only one day should intervene after this notice is left, and then if the account is not paid the service should be cut off.

Practically every company has a definite ruling that service is never to be cut off until an effort has been made to collect the account by a personal call.

Twenty-four Day Collection Interval

This collection routine allows fourteen days before cutting off service. Added to the original ten days of the discount period, this makes a twenty-four day collection interval. This is extremely lenient.

As soon as a customer's service is discontinued for non-payment, his name should be placed in a permanent file, preferably visible for quick reference, where it is instantly available to the employees who receive applications for service. Every service application should be checked against this file before and not after the service is installed.

The original delinquent notification, therefore, can be used in a checking list until the service is cut-off and after that it can become a matter of permanent record.

The value of such a quickly accessible record of unpaid accounts is readily apparent when we consider that the application for service should be checked, if possible, while the customer is still present. It is much better to discover the unpaid account while it is possible to talk to the customer, than to hold up installing the service later until the

customer can be reached, or to try to collect the account after the gas has been turned on.

Collection of Final Accounts

The collection of final service accounts requires all of the resources at the command of the Collection Department. Usually a copy of the unpaid final bill is sent to the Collection Department ten days after the final bill has been rendered. A delinquent card, preferably of a different color than the regular delinquent notification card, should be placed at once in the delinquent file.

The Collection Department then proceeds to hunt up information that will help it to place the final bill in the hands of the customer, or to mail the bill if he has moved from the city. It is here that information entered on the service application may become very valuable. It is especially valuable to have the customer's business address. The deposit record is also valuable at this time. If there is a deposit it should be applied to the final bill, and a letter should be written to the customer informing him that there is a balance in his favor, or against him, and requesting him to call at the office and close his account.

In a later article in this series we shall deal in detail with the deposit policy and deposit records.

The co-operation of the Filing Department, and of the deposit record clerks is essential. Collecting unpaid final bills is a discouraging task at best, and the Collection Department is entitled to all of the help that the rest of the company can give.

When a final bill is definitely found to be uncollectible, the delinquent card should be filed in the permanent visible file of unpaid accounts.

Collecting Merchandise Accounts

The sale of gas appliances, particularly on the extended payment plan, has tremendously increased the duties and responsibilities of the Collection Department.

It is the general custom to have the Collection Department approve the credit of the customer before merchandise is delivered to him on account. This means that a copy of every sales order involving an installment account is inspected by the Collection Department before the merchandise is delivered. We shall deal with the sales routine in a later article, and shall confine ourselves at this point to the collection of delinquent merchandise accounts.

Collection Work In One Department

In most cases it has been found advisable to place the entire collection work of the company in one department, and not to have separate departments for the collection of service and merchandise accounts. This is particularly desirable where the installment account is billed on the customer's service bill, which is the billing method most generally in use. Having only one Collection Department concentrates in one place the common fund of collection knowledge.

In discussing merchandise collections we wish first to distinguish carefully between the duties of the Auditing Department and the duties of the Collection Department. The Collection Department should not maintain the ledger account with the customer This should always be kept in the Auditing Department.

It is only at the request of the Auditing Department that the Collection Department acts. In the case of service accounts, the delinquent list serves as this request. In the case of merchandise accounts a similar request is necessary.

We shall outline here a method of making the collection request, and of handling collections, which is particularly effective in carrying the collection proceedings definitely to a conclusion in every case.

GA. RY. & POWER CO. HARDEX SYSTEMS-ATLANTA-U.S.A.

INSTALLMENT IN ARREARS		DATE PAID	BALANCE OF INSTALLMENT DUE		COLLECTION DEPT. ACTIVITIES								
					DATE	FORM NO.	DATE	FORM NO.	DATE	FORM NO.	DATE OF LETTER	TIME LIMIT	REPOSSESSED

ARTICLE	AMOUNT	ADDRESS CHANGES
BUSINESS ADDRESS		

NAME	AMOUNT	DUE	ADDRESS
1 2 3 4 5 6 7 8 9 10 11 12	13 14 15	16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31

The Accounts Receivable Card

The form shown is an accounts receivable card which combines the ledger record and the collection notice. This form is filed in a visible cabinet. It is originally made out in the Auditing Department on receipt of the sales order showing that the merchandise has been delivered. The name, address, total amount of each installment, and the due date are typed on the visible line. The due date is preferably

the same date as that on which the customer's service bill is due.

A colored signal is placed over the date two days preceding the due date, as a guide to the bookkeeper in making out the statement or in listing the amount ready for entering on the service bill.

After the statement is made out, the bookkeeper places a second colored signal over the date five days after the due date. The colored signal which served as a billing reminder is never removed.

If the installment is paid before the follow-up date arrives, the bookkeeper merely stamps the date in the date paid column and removes the follow-up signal. If the installment is not paid by the time the follow-up date arrives, the bookkeeper removes the card from the visible file and sends it to the Collection Department. There a visible cabinet should be kept in readiness to receive such cards.

Space is provided on this card for three form notices by the Collection Department, and finally for a letter. As each form notice is sent, the colored signal is moved to the date on which the next notice is to be mailed.

Checking Payments on Card

Of course it is extremely important that all payments of overdue accounts be checked promptly against this delinquent file. Therefore, the paid stub of each overdue bill must be checked against the file before it is credited to the customer.

Immediately on receipt of the paid stub, the Collection Department removes the customer's card from its place in the file and returns it to the Auditing Department.

We should of course note that a record card of a distinctive color has been left in the Auditing Department file while the account card has been in the Collection Department. This card need show only the information which is on the visible line of the regular account card. It is removed when the account card is returned from the Collection Department.

Thirty-Day Accounts

All gas companies sell merchandise on thirty-day accounts as well as on the installment plan. Such accounts are billed on the first of the month following the date of purchase.

The accounts receivable ledger for these accounts can be combined with the installment accounts ledger file, merely by using an ordinary ledger card of a different color than the installment card. If the account becomes delinquent, the same procedure may be followed as in collecting installment accounts. Of course the date figures are necessary on the visible edge of the ledger card, so as to insure proper signalling for follow-up.

Conclusion

The one general principle that must apply to every collection process is absolute accuracy. We must prevent—definitely—the possibility of "dunning" a customer after his account has been paid, or while his account is being investigated.

And we should never cut off gas service, or repossess an appliance, unless such action is absolutely a last resort.

We must always, before taking such action, have a collector—the best one we can afford—try to make a personal call on the customer.

There is far more to collecting than merely getting the money. There are infinite possibilities for service to the customers and good will for the company.

Fixed Capital Records *

Analysis of accounting practice in structural costs

H. C. Davidson

Consolidated Gas Company, New York City

THE subject of Fixed Capital Records has been given much study in recent years, and the need of adequate and complete property records has become so generally recognized as to require no comment, much less argument in its favor.

It is not the aim of this paper to outline any system as "a panacea for all ills" in keeping fixed capital records, or continuous inventories. Instead, it will be directed chiefly to a discussion of some of the principles of accounting for fixed capital. particularly as to the elements of undistributable structural cost, in the hope that it may evoke a constructive discussion of the subject in this conference.

"Cost Plus" Systems

The trend of recent years. in large projects, at least, other than public work, has been toward the "cost plus" contract for construction. The "cost plus" form of contract, employed during the war

* Presented at meeting of Accounting Section of Empire State Gas and Electric Association, April 21, 1926.

period, to enable contractors to prevail against the tide of rising prices, is becoming established, it would appear, with the modification of a limitation figure, as a form of contract affording the maximum of protection to the purchaser.

This form of contract has added new problems and has imposed more exacting duties upon the accountant or auditor. In the olden days, the executive or the engineer made a contract for a unit of plant for, say, X dollars, and the accountant's duty was to ensure that that figure was recorded in the correct accounts in the ledger. Now he must, as an auditor, verify, say, the cost of steel at the mill, its transportation to the shop of the contractor, the labor, material, and overhead charges of fabrication at the shop, transportation to the field, field erection labor and expense, use of construction equipment, which may be owned or leased by the contractor, and so on, to the final item of contractor's general expense and profit. By the time he has completed this examination, he finds himself on terms of intimate acquaintance with indirect items of cost, which were formerly so buried in the lump sum prices as to be quite beyond his horizon.

He must not only understand and follow closely the trail of the engineer, to the end that sound practices are adopted in the treatment of the various elements of cost, as developed in a cost plus job, but he is also confronted with a very real problem to reconcile the accounting practices as to these items with the same elements in a lump sum contract, equally existent but buried like the proverbial hat in the expense account.

Drafting Time

Probably the first of these troublesome charges that comes to his attention is the classification of drafting time. Drafting applicable to the general design of the plant, types of apparatus, and other general features, whether incurred by the contractor or the Engineering Department of the company, is obviously a part of "Engineering and Superintendence," and should be so classified. It endures, as long as the plant is in existence, and is not affected by changes or supersessions in individual units. Detailed drawings, on the other hand, become a part of the cost of the specific apparatus, and should be allocated to the separate units. Their cost should go out of the capital account with the withdrawal of the equipment to which they are applicable.

In this case the line of demarcation between the two groups may be easily determined, but must be established in advance of the work if accurate results are to be accomplished automatically. This will serve as an example to show the necessity for the accountant to "be on the job" early in the organization of the work, for if he is to assume the responsibility of the classifications finally adopted in the accounts, he must initiate and establish the accounting requirements to be met. Before the work commences he should agree with the engineers upon the accounts to be set up, and items to be classified to each. But this is aside from a discussion of accounting principles.

In the progress of the work, it becomes necessary for the contractor to organize in the field a staff of inspectors, timekeepers, watchmen and clerks, to establish a field office, storerooms, blacksmith shop and other service buildings, possibly to lay temporary roads, and to incur expenses for such items as transportation of workmen, insurance, telephone, and stationery and other supplies. The company also requires its own staff of field employees for supervision of the work and the maintenance of the necessary records of its progress.

Allocating the Expenses

The extent to which these expenses should be allocated to specific units of apparatus, or be classified as separate items of undistributed indirect costs, is not always easily determined along consistent lines. If the auditor consults the oracle for guidance in this regard, he finds under account 356—"Miscellaneous Construction Expenditures"—ample justification for any course within reason he may wish to follow. He reads that he may include under this account items "which cannot properly be charged to any other account," but is admonished not to make it a dumping ground, by the instruction that "when any of the expenditures above enumerated can be charged directly to the account for which incurred, they should be so charged." The question is therefore one of fact—"For which account are these expenses incurred?"

The issue is one of sound accounting practices between allowing these expenses to remain undistributed permanently and assigning them to respective units. The natural tendency in a project of one unit, such as the construction of a storage holder, or an office building, would be to treat the total as a part of direct cost. In a large project with a multiplicity of units, however, an actual distribution as to many of these items is out of the question.

Direct Allocation Impractical

Direct allocation of the wages of timekeepers, watchmen, clerks, and others, engaged upon duties applicable to the plant as a whole, will be found utterly impracticable. If these items are to be distributed at all, distribution can be made only at the end of the job, and then on some apportionment basis. The accumulation of these costs in the first instance, as separate items, is thus necessary in any case, and "Miscellaneous Construction Expenditures" suitably subdivided, is the logical account for this purpose (unless appropriate subdivisions of work in progress are used instead).

You may say that the policy as to the disposition of these items should be governed by the requirements in the event of a withdrawal; that if the undistributed item its affected by the withdrawal of a unit, allocation directly to the unit is the better policy. But even this may be open to debate. Just how much of the wages of inspectors, timekeepers, and watchmen, or of miscellaneous field expenses,

may be ascribed to a particular unit withdrawn? At least a part of these items may properly be claimed as applicable only to the plant as a whole, and to be affected by changes or substitutions in apparatus. Objection may also be made, with reason, to any arbitrary spreading of these items merely to get rid of them, which would not conform to true costs.

Items as Unit Figures

On the other hand, if the plant were being built on a subdivided lump sum or a unit price contract, and all of these items were swept into unit figures for the various structures and apparatus, not only would they be spread to the respective units, but they would probably be distributed according to good looking sales figures rather than actual cost.

If we were to follow a hair-line division in the matter of allocation, we might say that the expenses incurred by the contractor should be applied to the several units, whereas the expenses of the company represented general supervision and should not be distributed. But unfortunately this in turn would depend upon the terms and conditions under which the contractor performs the work, and no fixed rule can be laid down in this regard with safety.

I have dwelt at some length upon these items, which are really as much a part of the direct cost as the brick and steel itself, for the reason that there is a good deal to be said on both sides of the question. I am satisfied that no hard and fast rule can be applied to them, but urge that as many as possible be spread to the individual units. There are distinct advantages in gathering them first in separate accounts, but whatever the ultimate action, it is important that the accounts be so kept as to disclose the total amount of each of these elements of cost.

Importance of Information

The accountant must not lose sight of the fact that he may some day be called upon to support the opinion testimony of the engineers as to these items. Also if these elements have been recorded separately as to only a portion of the property, he should have this information available, in order that he may be able to present a true picture of their relationship to the direct items of structural cost for the entire plant.

Similar difficulties arise as to the classification of field tools and construction equipment. Here the problem is further complicated by the fact that various ways of measuring the cost of tools may be employed. Tools may be purchased outright as required and charged to the job, and credit be given for those salvaged upon its completion, or the contractor may be compensated either by a percentage of the direct field labor, or by a lump sum fixed by the contract. Again it is a common practice to rent on a per diem or monthly rental, certain large units of construction equipment, like steam shovels, pile-drivers, steam rollers, pumps, cranes, derricks, concrete mixers, compressors, and similar equipment.

Still another source of charges for tools may come from the operation of a blacksmith shop, of the cost of which the sharpening and repairing of tools forms a considerable portion. There are also the various supplies for upkeep and purchases of repair parts for tools, all of which constitute a part of the cost of tools during the construction period.

Sound Policy Requirements

In the matter of classification, the Uniform System of Accounts again places no restriction upon the accounting procedure to be followed, other than its fundamental requirement of sound policy. Account 327-G—"Miscellaneous Equipment," is intended to provide only for tools and implements carried permanently after operation has started, and there appears to be no direct provision for the tools consumed during the construction period. Accordingly the net cost of tools during construction is likewise a part of "Miscellaneous Construction Expenditures."

The use of mechanical equipment is ordinarily easily identified with the unit it serves, and as it represents essentially a substitution for manual labor, which would have been charged to the individual units without question, it seems logical to distribute the cost of the equipment directly to the accounts affected. Repairs to this equipment, if not provided in the rental rate, should follow generally the same distribution, although some arbitrary approximations may be necessary.

The Tool Problem

Hand tools—shovels, picks, wrenches, carpenters' and pipe-fitters' tools, and the like—present a very different problem. A considerable portion of these will be consumed in the course of the job, and no charges can be considered permanent until the work is completed and the amount of salvage known. So we face here, as in the items previously referred to, the necessity of gathering in a separate account the cost of tools as one of the sundry expenses of construction. And again, I urge the distribution of the final cost of tools to the respective units, upon some apportionment basis. In any case, it is important to know the actual cost of tools, and their ratio to the field labor.

Temporary Structures

Still another of these indirect costs which is very difficult of distribution, if indeed, it should be distributed at all, is the cost of temporary structures. Certain field buildings are constructed to serve during the period of construction, such as the field office, storeroom, machine shop, blacksmith's shop, and others. Other structures are built for temporary needs in connection with some stage of the construction, and having served that purpose are immediately torn down. Temporary structures, whether standing or demolished, represent one of the undistributable items which cannot be wholly identified with any unit of the plant.

Contractors' overhead and profit, at least, cause no debatable problem. If on a percentage basis, a systematic form of invoice, grouping the charges according to accounts affected, with the percentage added to each account, will accomplish automatic distribution of these items. If the contract provides for these items in a fixed sum, it will be necessary to apportion that sum over the various units at the close of the job

Aggregates Highly Important

Whether you ultimately spread these various expenses over the direct accounts, or allow them to remain permanently in the undistributed classifications, do not fail to accumulate their cost in such manner as to know the aggregates and the relation to the direct costs of construction. Do not hesitate to seek the constructive criticism of your engineering associates upon your accounting results, toward the end that the book figures may be co-related to the engineering estimates for the various units of the plant. If there is anything wrong with your figures, you will know it.

We pass on, in the progress of the construction, to the consideration of other undisturbed items, more clearly defined as to their classification, but involving questions as to their proper measurement.

Taxes

Taxes during construction will ordinarily be confined to real estate. Except in the case of a separate property, it may be very difficult, or even impossible, to identify the amount of taxes which should be capitalized. Minor additions will normally be actually in operation before any tax is assessed upon them, and it is not intended to recommend any hair splitting policy. Taxes on land acquired for a construction project are a proper capital charge from the date of purchase until the plant is placed in operation. Back taxes on the property, however—that is, applicable to the period prior to the date of acquisition but assumed by the purchaser—become a part of the cost of the land itself, and should not be included in this account.

Interest

Interest during construction, while not a problem of the cost plus form of contract, affords ample opportunity for study as to its proper measurement. It is frequently lost sight of entirely, and with some justification, particularly in piece-meal additions to property, where the construction period is relatively short, and the measurement is difficult.

It is only when a major extension or a new plant is constructed that we give adequate consideration to this important element of cost. The practices in those cases follow generally one or the other of two theories, which I will term "cash outlay" and "actual sacrifice."

The Uniform System of Accounts in effect in this State from 1909 to 1923, inclusive, virtually prescribed the cash outlay basis, and it was only with the adoption of the classification effective in 1924, that specific provision was made permitting that interest on a company's own funds be capitalized.

Cash Outlay Method

The cash outlay method of measurement of interest during construction has the objection that it virtually requires tracing the dollar to earmark the source of the funds and identify the actual interest costs applicable to the construction, a task which may and usually does lead through fantastic speculation. It has the further disadvantages that it makes no provision for interest on the company's own funds, and that it penalizes a company of strong financial standing, in comparison to a weaker company paying a higher price for its money. It further violates sound economics, in my judgment, by the failure to take cognizance of the means by which the particular funds are secured. Aside from the financial standing of the company, the price necessarily paid for the required funds will depend upon the type of security offered. First mortgage bonds, for example, might be sold, in an amount sufficient to finance a new plant, at a cost of five per cent. or less. The same funds, if obtained through the sale of stock, however, might cost seven or eight per cent. or more. And yet, gentlemen, that is the most common form of measuring this element of cost.

If the cash outlay method is adopted, it is urged that interest should be computed from the date of acquisition of the funds, rather than from the date of actual expenditure.

This method has the advantage of the determination of the interest reasonably applicable to the construction, at the close of the period, when the conditions surrounding the provision of the funds are definitely known. It also permits of capitalization of interest at a rate commensurate with the average cost of funds from all sources.

Conclusion

Time does not permit of further discussion of the many problems of organization of these construction accounts. In conclusion, let me impress upon you the importance of careful study of these elements of cost. The classification prescribes that some are to remain permanently undistributed; others not specifically referred to are destined to remain in the same category, for the reason that there is no sound basis of distribution; still others should logically be spread as to the accounts for which incurred, although they may be accumulated initially in a separate undistributed account.

I leave with you two main thoughts in connection with these elements of cost. Know the expenses classified to each account; and whether distributed or not, know the aggregate cost of each and its ratio to the total construction.

Building Sales Through Window Displays

An analysis of an attractive display

Frank H. Williams

THE Consumers Power Company, of Kalamazoo, Michigan, uses window displays constantly and effectively in selling gas ranges and appliances in ways that will probably offer worthwhile ideas and suggestions to other gas companies and other dealers in gas appliances.

The main features of the way in which this concern uses window displays in selling more goods are these:

First—The displays are changed frequently.

Second—There are always enough goods on display so as to give people plenty of things to look at.

Third—Placards are used extensively in the displays for the purpose of explaining the displays and also for the purpose of making the windows more newsy.

Fourth—The displays are arranged by means of "steps" so that all of the goods are given a good display and are not hidden by goods in the foreground.

Fifth—The displays are made just as attractive as they possibly can be made by the use of good lighting and good decorations all the time.

Helpful in Building Sales

All these factors contribute splendidly to the helpfulness of the concern's displays in building more business. And, undoubtedly, other concerns could use some or all of these methods with equally good results.

Let us, therefore, study the above points more carefully.

Consider, for instance, the first point of changing the displays frequently. And in doing this stop a minute and think about the people to whom the establishment will sell ranges and appliances.

In practically all cases the gas company's customers are residents of the city in which the concern is located or are residents of the immediate territory. Folks who do not live in the city or immediate territory seldom buy anything. The gas company's business comes, practically always, from permanent residents.

Now the permanent residents of a city or territory are the folks who pass the gas company's place of business most regularly, in all probability. Consequently if the gas company has the same old display on view all the time it means that the folks passing the store who are the most likely buyers of ranges and appliances will probably have seen the display before. Transients, on the other hand, who may be in the city only for a day or so, will view the display as something new and fresh. But the transients do not buy any goods. So, it is evident that in order to attract as much attention as possible all the time from the local folks and residents of the immediate territory, it is mighty good policy to change the gas company window displays very frequently.

Plenty to Look At

This second point of giving folks plenty of things to look at in the display is vitally important in making the displays particularly successful in selling goods. Suppose the concern has only a single gas range on display. Right away the pulling power of the window is limited, because it will prove interesting only to folks who are interested in that one particular kind of range. Also because there is only the one thing on display, all folks can see the display quickly and then pass on quickly. And, of coure, the less time folks spend in looking at the display the less of a strong impression the display makes on folks.

Having plenty of things in the window for folks to look at, then, is a mighty good thing in selling more goods because it keeps people looking at the display that much longer and because it has a much wider range of interest and so is more likely to influence more people to buy the goods shown.

Use of Placards

The third point of using placards extensively in the display helps tremendously in focusing attention more strongly on the display and helps in selling more goods. When placards are used in displays the natural thing is for folks to stop and read the placards. And when they have read the placards they naturally take that much more interest in the goods talked about than would otherwise be the case.

The Consumers Power Company uses placards in its displays with splendid results. Notice, for instance, the placard to the left of the picture. This reads like this:

Window Display of Consumers Power Co.

"This Beautiful Universal Range
"Free
"To the Kalamazoo Housewife having oldest gas range still in use.

"Register your range now."

That's an interesting, newsy placard, isn't it? And just the fact alone of having this placard in the window is bound to make more folks take a deep interest in the ranges on view even if they have no intention of entering their own ranges in the contest.

Notice the other placards in the window. They are all interesting and they are all short. Short placards are always more quickly read than long placards and are more helpful than long placards in getting folks interested in the goods.

"Stepping" Up the Window

This proposition of "stepping" up the window so that goods at the rear get just about as good a display as the goods in the immediate foreground is a mighty good stunt that is worth the careful consideration of all concerns handling ranges and gas appliances. Not only does this sort of an arrangment —as used by the Consumers Power Company as shown in the accompanying picture—help greatly in getting a better display of the goods at the rear of the window but it also helps greatly in giving a more interesting, newsy and attractive appearance to the window.

"Steps" of this sort can be installed without much expense in any window and, of course, they can be kept low enough so that they will not cut off much of the light coming through the window into the salesroom or office of the concern.

Good Lighting Important

Good lighting for the gas company's window displays should always be a matter of very careful consideration. When windows are lighted so that there are no dark corners or shadows, then the goods always look much more attractive than when they are in shadow. And, of course, the more attractive the goods look the more likelihood there is that the establishment will sell them.

Also, of course, everything that can be done to enhance the attractiveness of the displays and of the goods is a mighty fine thing for the store. Frequently it will be found that rugs are a great help in making the displays attractive. Or crepe paper, or ribbons will help. But, of course, the decorations in the show window should never be allowed to get so elaborate that they distract attention from the goods on display. All the displays should always be arranged so that attention is consistently focused on the goods that the store is displaying in the windows for the purpose of sale.

High Pressure Gas Regulation*

Advantages of pounds to pounds system are described

Otto Goldkamp

San Diego Consolidated Gas & Electric Co.

THE gas industry, in its efforts to meet the ever growing demand for its product has expressed its resourcefulness no more effectively than in the advances made in the methods of gas distribution. This advance is due largely, if not entirely, to the gradual improvement and development of automatic pressure controlling devices.

The efficient control of higher pressures than those supplied by the ordinary gas holders has brought about the development of the modern high pressure distribution systems.

These distribution systems affording greater conductivity in any given size of pipe have made it possible to supply large areas and territories economically and profitably.

District Regulation

By the use of district regulators and the utilization of high pressure reinforcing lines it is possible to supply outlying districts served by low pressure mains. The purpose of the district regulator is to maintain a low operating pressure in the district, independent of the variation or fluctuation of the inlet or primary pressure and of the low pressure demand. Regulators which accomplish these desirable results are of the balanced valve type.

Balanced Valve Regulators

The balanced valve is of a double seat construction and is so arranged in the body of the regulator that the variation in the primary pressure will not affect the adjusted pressure of the regulator. One valve shuts off opposite to the stream flow of the gas and the other shuts off with the stream flow, as both valves are constructed in a single unit. These valves are of the same area and therefore a balance is constantly maintained.

This balance feature in this type of valve makes it possible to build large regulators of high capacity,

* Presented at the San Diego meeting of the Pacific Coast Association.

operating on extreme high primary pressure yet still remaining sensitive, responding to the slightest demand made upon them.

These valves are actuated by being connected directly or indirectly by a fulcrum to a diaphragm, which is operated by the secondary or lower pressure. This diaphragm is the agency which regulates and creates the power to shut off the valve at the periods when there is no consumption and is so counter-balanced by weights that the regulator shuts off at the maximum pressure desired.

The term maximum pressure is used here because the pressure must lower on the outlet side of the regulator or the valve cannot open. Tests have shown that some regulators will drop fifty per cent below their shut-off pressure before delivering the maximum conductivity of their outlet pipe. This condition is caused by the inability of the valve to get away from the inlet orifice without the pressure of the outlet lowering in proportion to the demand.

Remedying Methods

Several methods have been used by the manufacturers to overcome this condition, such as, venturi tubes, injector tubes and auxiliary regulators. In auxiliary regulators a differential pressure is created, that is to say, a different pressure from that which the outlet of the station delivers. The pressure in the auxiliary dash-pot is always lower during the periods of demand, which assists in the actuating of the main regulator by the automatic lowering of the weights, which will increase the pressure on the main regulator diaphragm, thereby causing the balanced valve to open further than would be possible without the creation of a differential pressure. This type of district station regulator will give good results if kept within its rated capacity. Charts with variations less than two-tenths of an inch during a twenty-four hour period are not uncommon if the regulators are properly adjusted.

Whenever a system is fed from one point only, it has been found that a double district regulator works out to the best advantage. Both regulators are then connected to one inlet and one outlet and balanced to deliver the same pressure when all the valves are open. When cleaning, one regulator can be shut off allowing the other unit to carry the load. This arrangement works to great advantage when the primary pressure falls below normal, due to the additional orifice area obtained by the dual installation.

Pounds to Pounds Regulators

The recent development of a regulator for reducing pressures ranging from 75 to 400 pounds, down to secondary pressures of 1 to 30 pounds has brought about new possibilities in high pressure distribution and is capable of very high capacity. The secondary pressure can be made to compound, that is, to increase with the demand, or a constant pressure can be maintained if desired.

This regulator is constructed on the toggle action principle and wit ha ten-pound delivery pressure will deliver in excess of 12,000 pounds pressure against the inlet orifice due to the power developed by the diaphragm. This high pressure against the inlet minimize the possibilities of pressure built-ups through leakage.

The use of the pounds-to-pounds regulator can be best utilized in communities which are sparsely settled and are fed by small transmission lines carrying from 75 to 200 pounds pressure to obtain maximum conductivity of the lines. The districts can be divided into sections of fifty to eighty consumers and at the take-off of the transmission line a 1-inch pounds-to-pounds regulator can be installed, which will reduce the transmission line pressure down to minimum pressure needed for the efficient operation thus better enabling the service regulator to shut off at periods of no consumption.

There should be a dust trap installed ahead of the pounds-to-pounds regulator to minimize the collection of any foreign substance on the valve seat, insuring positive shut off.

Advantage of Distribution System

This type of high pressure distribution prevents foreign matter from reaching the service regulator,

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Fruit is Abundant and Cheapest *Now*
—not too late to do up your whole winter's supply

Let a good gas range help you! The new oven way of canning frees you from the weary labor of standing over hot kettles—all you do is prepare the fruit in the jars, set them in the oven, regulate the heat at the proper degree, and leave the cooking to the oven heat regulator "to watch". You return to the kitchen when the time for processing is over, and your winter fruit is ready!

Come in and see the *New*
Gas Ranges
completely equipped with
Oven Heat Control
—and ask about our
Time Payment Plan

(Your Name and Address Here)

At Canning time and all the time, "You can do it better with Gas."

A.G.A.-457

A Timely Gas Ad—Tying Up Canning Time With the Gas Range.

eliminates the possibility of the transmission pressure passing to the appliances and reduced the average build-up in the service regulator 60 per cent (See Table No. 4). It also lowers the unaccounted for gas loss in the distribution system and places the various districts under control of a central point.

A stopcock, dust trap and regulator can be installed in a concrete box 20 inches long, 14 inches wide and 12 inches deep. A by-pass should be provided so that the dust trap and regulator can be cleaned and repaired when necessary. This can be accomplished by throttling the transmission pressure into the distribution system through the by-pass during repairs.

Where the transmission pressure exceeds 75 pounds and the consumers are so widely scattered that they cannot be grouped, an individual pounds-to-pounds regulator should be installed at the curb for each consumer as a safety measure the outlet pressure being set at about ten pounds per square inch.

Pounds-to-pounds regulators of the toggle action and differential pressure type are very compact in construction, have no weights, their delivery 2 to 3 times the capacity of the ordinary regulator and are about one-half the size of the regulators of equal capacity. They are inexpensive and are especially qualified for high pressure gas distribution and are so constructed that the troubles commonly encountered in other regulators are minimized. Most of the trouble, if any, is confined to the valve seat which is very accessible and can be replaced in about 10 minutes.

High Pressure Service Regulators

This style of regulator is usually used on high pressure mains connected directly with the customer's service, operating on inlet pressure of from 1 to 60 pounds per square inch and capable of delivering secondary pressures of from 1 inch to 14 inches of water column. When the initial pressure is from 1 to 5 pounds the ordinary ¾-inch size of service regulator should have a 5/16-inch inlet orifice. With the initial pressures from 5 pounds to 50 pounds the 3/16-inch orifice should be used. The ¾-inch size of service regulator has a diaphragm area from 36 to 44 square inches according to the make used, which is about all the area that can be utilized to keep the regulator size in proportion to the rest of the installation. Experience has brought out the fact that the 5/16-inch orifice is used on pressures exceeding 5 pounds will not give efficient service due to the greater area of the orifice which requires greater power to shut off as the delivery pressure rarely exceeds six inches water column and the diaphragm area is a set factor. It can be clearly seen that the inlet orifice size bears a strict relation to the area of the diaphragm when the variable factor of the initial pressure is considered.

In order that the diaphragm size may be kept within reason the manufacturers have developed the toggle and lever type of valve control.

Toggle Action

The toggle action is an excellent type of construction, the diaphragm being connected to the center of the toggle. One end of the toggle is fastened to the casting and the other end has a plunger mounted in a guide, and this plunger has a cup formed on one end holding a leather valve. This valve closes against a thin edged orifice at periods of no consumption when the diaphragm raises and straightens out the toggle, which forces the plunger and the valve leather against the orifice.

This eccentric action of the toggle develops a leverage similar to an ordinary bolt cutter and gives the diaphragm area increased power. This regulator does not use cast iron weights as found in many of the lever types of service regulators but has sheet steel discs on each side of the diaphragm. The disc on the atmospheric side of the diaphragm has a tension exerted on it by a helical wound spring for secondary pressure adjustment.

The elimination of weights saves considerable destruction of diaphragms during transportation; it also permits the regulator to be installed in a vertical or a horizontal position.

This type of service regulator allows the installation of valve seats in the plunger without the necessity of returning the regulator to the shop, which is a great saving in time and expense.

Lever Action

The lever action consists of a lever constructed of cast iron, the diaphragm being connected on one end and an adjustment screw with a valve pocket mounted to the screw by a swivel joint on the other end. This lever actuates on a pin running in a bearing mounted about 1 inch from the center of the valve pocket, this develops about a seven to one leverage. The diaphragm is placed between cast iron weights which assist in throwing the secondary pressure. Tension is delivered on one of the cast iron weights placed upon the atmospheric side of the diaphragm by a conical wound spring adjusted by an adjustment screw.

Mercury Seal

The mercury seal as combined with the service regulator is supposed to operate as a safety valve. Should any foreign matter collect under the valve and prevent it from closing properly, causing the pressure to raise, it will blow and prevent excessive pressure from building-up on the meter, house-piping and appliances.

There is a great deal of doubt among gas men regarding the necessity of a mercury seal. The first cost and operating expense are material when one considers the cost of the mercury and the loss from oxidization and emulsification.

A large number of service regulators which were

(Continued on page 198)

Advertising Space Size

What gas appliance advertisers find most effective

John T. Bartlett

TWO "dude" fishermen stood on the bank, and argued and observed with energy, "Was it a good day for fishing? Wasn't the water too high? Wasn't the water too roily? Was this a point in the stream which had been "fished out"?

They had spent an hour, so the story goes, when a farm boy with his home-made pole came trotting up. They asked him his opinion.

"What do you want my opinion for?" he said with a derisive grin. "All you have to do is to throw your line in and find out!"

This he did—and landed a fish.

The angler's test is the short way, many times, to get at facts of gas appliance advertising. In theory, determined after much analysis, a certain thing may be right or it may be wrong. In practice, the actual facts in the matter can be got at by the "angler's test." What are the typical gas appliance advertisers doing in this particular? Get a cross-section of gas appliance advertising practice, and the best methods will usually come to the surface. As with trout fishing, it does not particularly matter why they bite, as long as they do.

The Test Applied

The angler's test, applied to space gas appliance advertisement sizes by the writer, began in clipping all gas appliance advertisements encountered in a representative number of newspapers from various sections of the country. One of the first points tested was the most popular column width.

Of this representative group of gas appliance advertisements, two-column and three-column units run about even in number. These sizes appear by long odds the most popular with gas appliance retail advertisers. Other space units, as to width are found in any comprehensive angler's test, but they are small in number compared with two-column and three-column sizes.

Typical users of the two-column width are Montreal Light, Heat and Power Company, Montreal; Capital Gas and Electric Company, Topeka, Kansas; Southern Heating and Appliance Company, Houston, Texas.

Typical Ad Sizes

Typical sizes in two columns wide advertisements are twelve, ten, eight, seven, fourteen inches. The average of the "angler's test" on two-column advertisements was twelve inches—six inches in each column.

Of the three-column advertisements, the angler's test produced such sizes as fifteen, thirty-nine, twenty-four, thirty inches. The average size was approximately twenty-four inches, about eight inches in the single column.

Some of the users found were Citizens Gas Company, Indianapolis; Seattle Lighting Company, Seattle, Wash. Single column space was rare.

Four Column Width For Special Sales

Four-column and larger size, up to full page, is frequently found in any extended investigation. These larger sizes are ordinarily used for special sales, often in association with a drive on a single featured appliance.

Column width, the "angler's test" suggests, depends mostly on total space purchased. When the average gas appliance advertiser employs more than six or seven inches, he usually puts the copy in two columns instead of one. When he works with as much as fifteen inches, he concludes, usually, to employ at least three columns.

The "angler's test" shows no uniform practice with respect to standardized space units. In some communities, usually of smaller size, the gas appliance advertiser standardizes on a certain space unit and uses it, "regardless," for months at a time. In the larger cities, the practice is more likely to be standardization of space unit from one series of advertisements to another series. A single series of advertisements is enough to put into one size, it is thought. And many advertisers choose to vary space unit size from advertisement to advertisement within a series.

These observations are presented as a result of an "angler's test," and that is all. They are rough and ready conclusions, and not presented as scientifically exact. The proportion of two-column and three-column widths in advertisements, in particular, would vary from test to test; but those two sizes would be revealed generally as the most used.

Indian Summer Days Bring Brisk Evenings

A Gas Radiant Heater is just the thing to take the chill off the air, make the living room cozy and comfortable during the in-between months before time to start the furnace.

Find out how easily and how inexpensively you can have warmth when you need it—anywhere. Keep comfortable in fall weather with a

Gas Radiant Heater

$00 *Installed*

(Your Name and Address)

"If it's done with heat—you can do it better with GAS"

A.G.A.-432

Fall Is Coming and Radiant Heaters Will Soon Again Be In Demand.

As The Journal Views It

PUBLIC UTILITY INVESTMENTS

The average customer of the Public Utilities—and that of course includes practically every citizen—must at one time or another ask himself the question as to how much is invested in the Public Service Companies that serve him. When he receives a gas bill which he may think is too high or when there is an effort being made by the utility company to increase its rates, it may be natural for him to ask just how much profit the utility is making. He may be in business himself or he may be connected with some large corporation and know something about the return on the investment in business enterprises; he may have a pretty fair idea of what capital a business should have in order to be able to run.

And if he asks the question of those who know, and is prepared to view the matter in a fair and impartial manner, he will be much surprised to learn that the amount of money invested in the average utility company is very great in comparison with other businesses and is really a large multiple of the gross revenue. It is interesting accordingly to read of analysis made in Ohio to determine just how much money is invested in the public utilities that serve Ohioans compared to the gross revenue accrued by these companies during an annual period. This analysis yielded some surprising figures.

Thus, it was clearly indicated that for every dollar that is taken in as gross revenue by Ohio Public Utilities Companies—and it is fair to say that the same condition applies within approximate limits to every state—there were invested four dollars of capital. Thus, in the case of the gas companies the actual figure was $3.29 for every dollar of the gross revenue, while the other public utilities had invested in excess of $4.00 for every dollar of the gross revenue.

This is a large ratio and it is fair to say that it is larger than in the great majority of industries. To put it in other words, for a man to have a net income of $5,000 a year with a profit of 7 per cent, his gross income would have to be in excess of $71,000 and this would mean that he would have to have invested in his business $280,000 of capital at the public utility ratio. This is a condition that could scarcely exist in any other than the public utility company.

Figures of this character serve to teach the average citizen that the utilities that serve him deserve more consideration than they usually receive. It is not every man who would be willing to invest so much capital for such a comparatively small return. This is a matter of considerable importance and one that should be made known to all who use the service of utilities. It is hard to see how anyone, after a careful study of these conditions, could find fault with the average public service company and could come to the conclusion that the fair return that these companies demand is something that is beyond reason and should not be granted to them.

THE GAS OFFICE

It has been said before that the average consumer is very apt to judge the gas company from the character of its office. We mean, not so much the working of the office as the appearance, although the former is also a matter of great importance. While most gas companies realize that the functioning of their office is a potent element in building goodwill and developing the friendship of their customers, nevertheless, there are still some who do not have the right prospective of this detail of their business and also others who do not have the proper conception of the significance of its physical appearance.

When a customer comes into a gas office to pay a bill, to make a complaint, to place an order or to obtain any information, it stands to reason that the more comfortable and convenient the physical arrangement of the office and the more pleasing it is to the eye, the better will be the effect on that customer. There is nothing strange in this, for it applies to all fields of business. No one desires to patronize a merchant whose establishment is confused and where there is really physical difficulty in

obtaining attention and in satisfying one's wants. Such a merchant soon finds from his decreasing business that there is something wrong, and if he does not quickly remedy the fault he soon has to go out of business. Of course, the gas company is not faced with such eventualities but, nevertheless, it is very important for it to have an office that is attractive and convenient, one that the gas customers really experience pleasure in visiting. This does not mean that the office should be any elaborate affair, but it does mean that there should be chairs or places where a customer can rest while waiting for his or her information; that there should be easy access for the customer to the desk or window where the information is to be received; and that there should be some effort made on the part of the gas company to make the customer comfortable while he or she is in its premises.

It should not be necessary, as was seen in one case, to have the customer shout her requirements across to the clerk behind a high desk within an enclosure, because of the fact that a number of ranges and other merchandise were piled up in front of this partition, so that the customer could not advance right up to it. The office should be large enough to take care of the business, and it should not be necessary for customers to stand in line a long time before being attended to. These and others are rather minor details, and for that reason do not invite especial attention; nevertheless, those who have to contend with them are keenly aware of the difficulties and inconveniences that attend their visiting the gas office, and are very liable to judge the company entirely from their experience on its premises.

There is no question but that, on the whole, the gas office is a finely arranged, well-equipped and well-ordered business place. In fact, some of the offices of the larger gas companies are as elaborate, comfortable, and as carefully arranged as any office of any company in any line of business. These are the gas companies that have realized that it pays to make a good showing in the office, to have it properly arranged, conveniently located, and well organized for, after all, very few gas customers come in contact with any other property of the gas company than the office; and from it they derive their opinion as to the progressiveness of the gas utility. By doing a little to make the office attractive to visitors, the gas company can go a long way towards engendering and maintaining the goodwill and friendship of its customers.

How Gas Is Used in Refrigeration

"HOW in Heaven can you cool an ice-box by lighting the gas?"

That question often asked, expresses a natural confusion.

Let's start with the ice-box. You want to make it cool; or, more accurately speaking, you want to extract the heat from the box. For cold is merely the absence of heat. Why not perform a little operation within the box itself that will use up the heat, leaving the box cold. That's exactly what a refrigerating machine does. It takes the heat out of the box.

If you'll remember that a liquid, water for instance, uses up heat when it increases in temperature, or boils, or changes from a liquid to a vapor which way you choose to express it—it will help make this explanation clear. But refrigerating engineers, instead of using water, use one of a number of liquids that boil at a temperature much lower than the boiling point of water. Some will boil at temperatures far below zero. and will therefore more rapidly remove heat from a refrigerator.

In a refrigerating machine, this liquid is evaporated and expanded in coils inside the refrigerator. It's the inside of the refrigerator you wish to cool; here's where you wish to extract the heat. And in the gas-operated, or absorption type of machine, the vapor which results when expansion takes place in the coils is taken up by an absorbent material, in a container outside the refrigerator, that holds it in storage. This is done because refrigerants are costly, and must be used over and over again.

Now to produce more refrigeration, to make your refrigeration continuous, it is necessary to reliquify the refrigerant (ammonia, in most absorption machines), so that it may again be expanded in the coils inside the box.

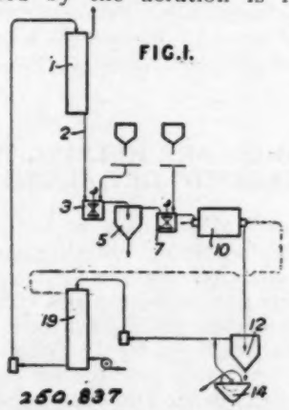
In short, it is in the repetition of this cycle,—changing the refrigerant from liquid to a gas and back again to a liquid,—necessary for continuous refrigeration, that the need for a heating medium arises. Otherwise the refrigerant, in a gaseous state, would remain immovable in the absorbent.

And the heat from the gas flame supplies this want.

PROGRESS IN GAS TECHNOLOGY
Domestic and Foreign

REVIVIFYING PURIFIER WASTE

IN a purification of fuel gases from hydrogen sulphide, hydrocyanic acid, etc., in which the latter are absorbed in an alkaline solution containing or subsequently mixed with an iron compound, the solution after precipitation of the iron sulphide is treated with an iron compound in the presence of carbon dioxide or a carbonated iron compound to precipitate iron ferrocyanide which is separated before regenerating the solution by aeration. The carbon dioxide formed by the aeration is re-utilized for



further purification. The gases are passed up a column 1, down which flows a solution of sodium carbonate. The fouled solution is led through a pipe 2 into a mixer 3, where it is mixed with ferrous hydrate paste, and the mixture is passed to a decanter 5, where the iron sulphide is separated. The solution is then treated in a mixer 7 with ferric carbonate and the mixture is led into a washer 10, where it is treated with carbon dioxide, the product being removed to a decanter 12, where the ferrocyanide is precipitated as a sludge, which is filtered on a rotary filter 14, the filtrate being added to the decanter solution which is pumped to a tower 19 for revivification, the carbon dioxide produced being used in the washer 10. British Patent No. 250,837.

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COKE AS A BY-PRODUCT AND RAW MATERIAL IN GAS MAKING

A VERY interesting article has been published in the Dutch Gas Journal, "Het Gas," Volume 46, pages 218-230.

This article is primarily concerned with coke as a product of gas formation and also as a raw material in the manufacture of gas. A review is given of the various methods for producing coke, with particular attention to the yields obtained. Results of investigations are given on the determination of the influence of the ash-content, of the structure and of the reactivity in the manufacturing operations, and also as far as these products affect the utilization of the coke. The treatment of the coke after it leaves the retort or by-product oven, with special reference to the utilization of the waste heat is also discussed. The use of low grade fuels, such as coke breeze, in the generator and the influence of the size of the coke particles and its reactivity during the gas-making process are described.

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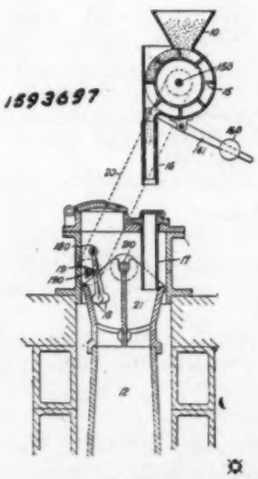

COMBUSTION OF COAL

IN U. S. Patent No. 1,593,697 there is described a process of charging a coking retort which comprises imparting vibration to the retort only while charging the same with coal, thereby rendering the charge more dense and consequently resulting in the production of a fuel of increased density.

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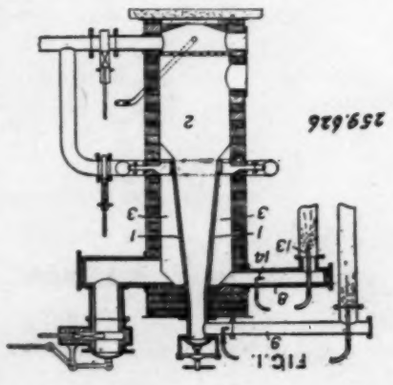
GAS PRODUCER WITH PRELIMINARY DISTILLATION RETORT

A WATER gas producer with preliminary distillation retort may form part of a suction or pressure gas plant. The producer gas generated in the combustion chamber 2 may pass through the retort 1 or be burnt in the flues 3. The producer gas outlet pipe 8, and the coal gas pipe 9 are fitted with steam jets 14 and liquor sprayer 13. The retort may be heated externally by the sensible heat of the producer gas which is afterward utilized in boiler, or led to storage. Gas fuel external source may be led to the upper part of the retort. British Patent No. 250,626.



HIGH PRESSURE GAS REGULATION

(Continued from page 193)

returned to the shop on account of foreign matter being deposited on the valve showed after test on 35 pounds primary pressure that the average build-up was about 2 pounds, they immediately fell to approximately 6 inches of water column pressure as soon as the outlet valve had started to open. These same regulators show a build-up of one pound only when operating on 15 pounds pressure. Past performances of thousands of regulators operating without mercury seals indicate no serious results from this 2 pound build.

The diaphragm in regulators usually deteriorate from the operation and the decay caused by the chemical constituents of the gas and break open. This causes the initial pressure to enter directly into the bowl of the regulator. The two openings provided in the bowl of a service regulator with a mercury seal attached for escape of excessive pressure are not sufficient to prevent the meter, house-piping and appliances from being affected.

Details of Tests

The following tests show the importance of sufficient vent area in the ordinary service type regulator when the diaphragm is ruptured:

The lever type 3/16-inch orifice, No. 30 drill gauge vent and ¼-inch mercury tube seal showed the following results:

TABLE No. 1

Primary Pressure	Secondary Pressure
50 Pounds	19 Pounds
40 "	15 "
30 "	10½ "
20 "	6¼ "
15 "	4½ "

The lever type 3/16-inch orifice and No. 30 drill gauge vent without mercury seal tube shows:

TABLE No. 2

Primary Pressure	Secondary Pressure
50 Pounds	33 Pounds
40 "	29 "
30 "	21 "
20 "	13 "
15 "	10 "

The toggle type 3/16-inch orifice and ½-inch std. pipe size vent without mercury seal shows:

TABLE No. 3

Primary Pressure	Secondary Pressure
50 Pounds	13.5" Water Column
40 "	7" " "
30 "	2" " "
	Vacuum
20 "	2" " "
15 "	2" " "

Tests on Repaired Regulators

A series of tests were conducted on numerous regulators removed and returned to the shop for repairs, which show that the average build-up of pressure due to foreign matter being deposited on the valve increased in direct proportion to the primary pressure. Attention is again called to the previous statement made in regard to the gradual minimizing of the build-up pressure as the primary pressure is decreased.

TABLE No. 4

Primary Pressure	Secondary or Build-up Pressure
50 Pounds	2.50 Pounds
40 "	2.25 "
35 "	2.00 "
30 "	1.82 "
25 "	1.50 "
20 "	1.30 "
15 "	1.00 "

It is obvious that the No. 2.50 build-up pressure will rupture a diaphragm which has been subjected to considerable use and deterioration much quicker than a 1 pound build-up pressure caused by the 15 pounds primary.

¤ ¤ ¤ ¤

GAS COMPANIES ARE HELPING THE "JUST MARRIED" GET ALONG

"Just-Married" incomes are now in their most strenuous days, according to the American Gas Association which has recently gathered together data and information from the gas company home service directors in the United States.

"Most of the requests for cooking information received by the various home service directors concern the more inexpensive and nutritive dishes," says the Association. "The new brides are also very persistent in their requests for 'real good bread recipes' and nearly always ask for information concerning some kind of cake that their husbands must be particularly fond of.

"It seems to be the consensus of opinion of the gas company workers that the blushing bride of yesterday has given way to the more capable bride of 1926, the bride who wants to please her husband and 'give him the kind of food that will make him forget his mother's.'

"It is particularly noteworthy to tabulate the fact that the cheaper dishes are in demand, for it proves without doubt that the young couple are striving to get along on their $1800 or $2000 yearly incomes. Much of the talk about the frivolity of the younger generation seems foolish when such facts are brought out.

"Of course certain dishes are in particular demand in certain sections. However, very few people ask for Boston baked bean recipes in New England, as it is almost a legend that every girl knows how to prepare them. In the Middle West pie recipes are in demand, and in the South the waffle is popular.

"The home service work of the gas companies is not limited to questions of cooking, however, as many other household questions come up for answer. Probably the question that is asked most frequently concerns the proper arrangement of the financial budget for the home."

INDUSTRIAL GAS LESSONS

IF IT'S DONE WITH HEAT — YOU CAN DO IT BETTER WITH GAS

Lesson No. 134

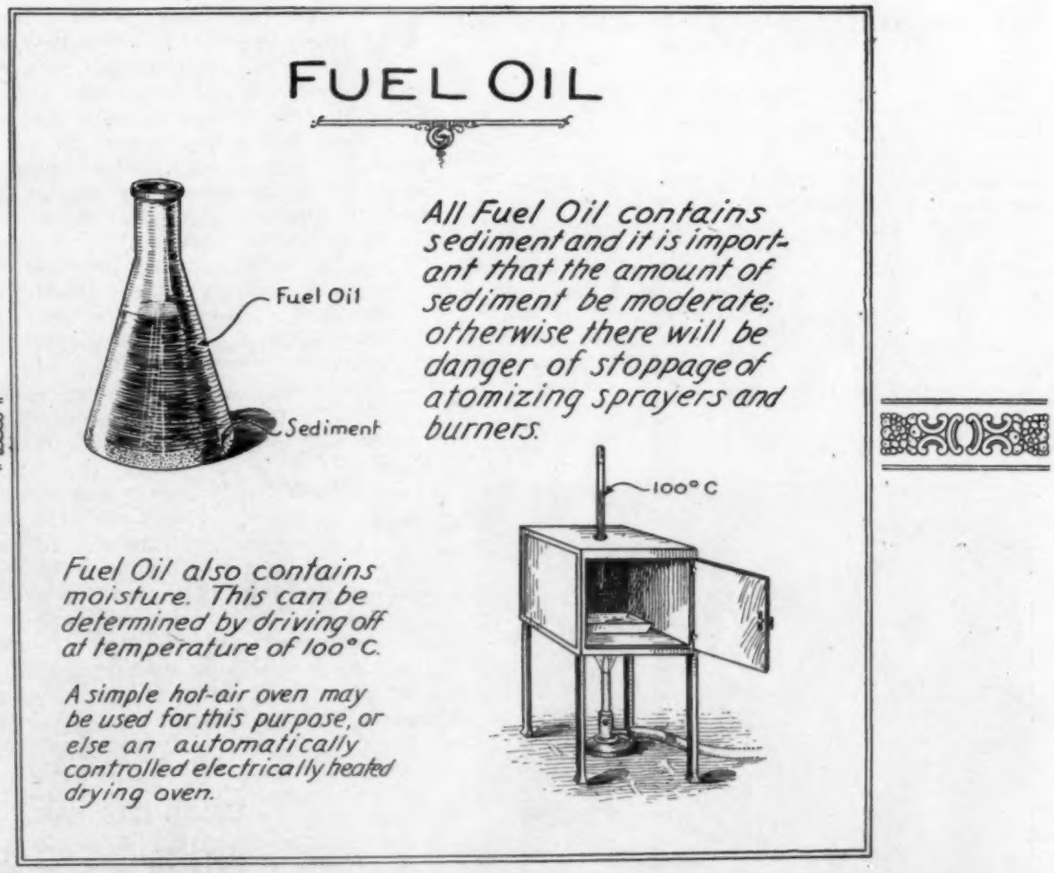
Combustion

Moisture and Sediment.

It is impossible to find a fuel oil that does not contain a certain percentage of moisture and sediment. These are present in all oils and are derived from the original crude petroleum. However, it is important that the percentage of moisture and sediment be no more than two per cent. If it is higher, there is a danger that serious trouble will be experienced with the use of the oil as a fuel in the furnace.

Specific Heat and Coefficient of Expansion.

These are the last tests that are generally carried out on a fuel oil. Specific heat is of course an important factor in the design of the heater, and generally varies between 0.4 and 0.5. The coefficient of expansion is the factor that enables the determination of the change in volume of the oil as the temperature rises or falls. The calculation can be made in the following equation:


FUEL OIL
Fuel Oil
Sediment
All Fuel Oil contains sediment and it is important that the amount of sediment be moderate; otherwise there will be danger of stoppage of atomizing sprayers and burners.
Fuel Oil also contains moisture. This can be determined by driving off at temperature of 100° C.
A simple hot-air oven may be used for this purpose, or else an automatically controlled electrically heated drying oven.
100° C

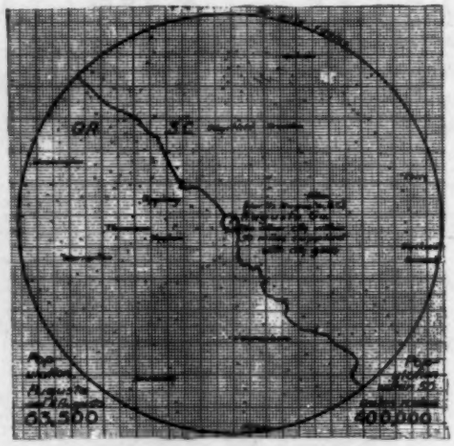
$$Vt=Vo\ (1\pm0.0004t).$$

In this equation the Vo is the volume at the initial temperature, Vt is the volume at the final temperature and t is the temperature differential between the starting and the final point, which may be either a plus or minus increment.

The average specific heat fuel oil is 0.448 for oil of Russian origin—0.433 for oil derived from Burma petroleum and 0.436 for oil derived from Texas petroleum.

The following table gives specific heats in B. T. U. per pound for other petroleum distillates:

		Specific Heat in B. T. U. Per Lb.
Gasoline .....89°	Be.....	0.580
Gasoline .....65°	Be.....	0.569
Naphtha .....56°	Be.....	0.510
Kerosene .....43°	Be.....	0.499



District Around Augusta Enjoying Gas-Baked Bread.

THE INDUSTRIAL MARKET IN AND AROUND AUGUSTA, GA.

Last week, on page 169, we published Mr. E. D. Brewer's comments on an article by Mr. Horace H. Clark, entitled the Goal of the Gas Industry, published in the August 7th issue. This letter was accompanied by two illustrations which were unavoidably omitted and are shown herewith.

One illustrates a gas-fired bakery in Augusta, Ga., which supplies that community with a good deal of the bread eaten there. The other shows a district around Augusta, Ga., of fifty miles radius, indicating towns that do not have city gas but that enjoy bread cooked with city gas in Augusta.

Bakery at Augusta, Ga. Gas Heats Oven, 60,000 Loaves per 24 Hours Capacity.

AN ATTRACTIVE DISPLAY IN DENVER

WONDERING why so many folks stopped to gaze into the large show-windows of the Public Service Company, Denver, I edged my way in and beheld what looked like a savage lion. I saw that he was an artificial lion and I also saw that there was a Lion automatic gas heater in the window. Sizing it up, the whole window was trimmed to represent the jungles and Mr. Lion seemed to dare any one to take his heater, yet the card sign read:

"Let us install one of these Pittsburgh Lion Automatic Water Heaters in your home.

"Inexpensive to own—inexpensive to operate.

"Come in and let us show you."

The lion's mouth would open and close to amuse the crowd, and of course folks read the sign and knew.

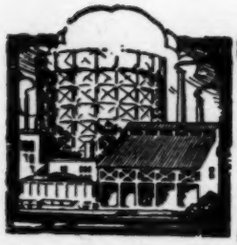
In the next window there was a smiling lion, looking up at one of the water heaters, as much as to say: "I've got one and I am tickled with it."

The card sign also invited folks to come in and see how the wonderful water heater worked.

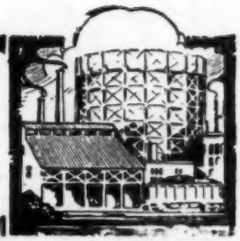
It's things like this that advertise wares and bring sales whereas if the appliance was merely placed in the window with a little card sign, many would pass, but few would stop and we would have another case of wasted effort.

USING GAS TAR

AN interesting French Patent No. 604,424 describes a method for making use of the tar that is obtained in the manufacture of coal gas. Tar is recovered in the usual manner and is concentrated and then is introduced to the retort, where the coal is distilled.



NEWS OF THE GAS INDUSTRY



New York Public Service Commission Decides Long Island Gas Dispute

Operating Territory Not Indefinitely Inviolate

Albany, N. Y.—"A public service corporation has no right to assume that territory in which it might operate will be kept sacred and inviolate until such time as it shall decide that it is ready to enter. In such cases the needs of the people are paramount. This has been the policy of the Commission."

This ruling was made by the Public Service Commission today when it granted to the Nassau & Suffolk Lighting Company the right to distribute electricity in that part of the town of Hempstead, Nassau County, known as Island Park and including that part of the town known locally as Barnum's Island. This ruling was over objections by the Queens Borough Gas & Electric Company and the Long Island Company which opposed the right of the Nassau & Suffolk Company to serve consumers.

The Commission also approved the exercise of rights by the Nassau & Suffolk Company under a franchise granted by the Highway Commissioners of the town to the Nassau Illuminating & Power Company which was merged with the Nassau & Suffolk Company and the franchise assigned. The franchise was dated March 22, 1905.

The Queens Borough Gas & Electric Company and the Long Island Lighting Company which had franchises to operate in the town of Hempstead, intervened in the proceedings before the Commission and objected to the granting of the Nassau & Suffolk Company's petition. They also asked the Commission to begin proceedings to require the Nassau & Suffolk Company to stop supplying the public alleging such operation was illegal. The latter company's application was strongly opposed, 2737 pages of testimony and many exhibits submitted on hearing.

The Nassau & Suffolk Company was incorporated in 1905 to supply electricity only in the counties of Nassau and Suffolk. The Hempstead authorities on March 22, 1905, granted a franchise to the Nassau Illuminating and Power Company to supply gas and electricity in the town. This franchise was assigned to the Nassau & Suffolk Company on May 16, 1905. The two companies were merged, on the commission finding that this merger was consummated in accordance with the provisions of law then in effect and that the Nassau & Suffolk Company was properly vested with all the rights and privileges possessed by the Nassau Illuminating & Power Company.

$46,000,000 UTILITIES DEAL

Big Merger in Pennslyvania Proposed—U. G. I. Interested

Philadelphia, Pa.—Plans for the merger of eighteen gas and electric light companies operating in Bucks, Delaware and Montgomery Counties, involving securities and other assets valued at $46,000,000, has been placed before the Public Service Commission for approval. The estimate of the amount involved was made by an attorney appearing in behalf of the merger, which, if carried out, would give the United Gas Improvement Company control of the county organizations.

Plans for the consolidation call for all the companies to operate as the Philadelphia Counties Suburban Gas and Electric Company. The company would be capitalized at 650,000 shares of stock of no par value. Stockholders of the companies involved have approved the venture.

Lawrence Gas & Electric Company Holds Outing

Sports and Feasting at Gala Event

Lawrence, Mass.—Nearly 100 cars, bearing the employees of the Lawrence Gas and Electric Company, recently left Lawrence for a grand carnival and outing.

The caravan, as well as the happy cargo it comprised, were well protected, for included within its long file were an ambulance, an emergency car of the company and the wrecking car of the Lawrence Automobile Club. The ambulance was from the Lawrence General Hospital, and was driven by "Clif" Barnes of the electrical department. Miss Betty Adams, former nurse, now with the company, resumed her old profession for the day, and accompanied "Clif." Fortunately none of these valuable "assets" were called into play. State police officers, Dennis Driscoll of Rowley, and Leon Varnam of Reading, were two of the motorcycle "cops" who escorted the machines.

Upon arrival at the grove, a group picture was taken, following which the sports program was gotten under way in real earnest. The sports for the ladies were run off first. Competition was keen, and much interest was centered in the events throughout. Miss Florence Gilchrist, of the accountant department, took the most points in the ladies contests, and, besides a number of other prizes, was awarded a silk parasol.

In the afternoon the sporting events for the men took place.

William McDonnell was the starter. Others on the sports committee acted as judges. Henry Cassidy, of the gas department, took the most individual points, and was awarded a $5 gold piece. The electrical department, however, as a whole, took the most points, and retained the president's silver cup for another year. This department won the cup at last year's outing. Three times winning will make it a permanent possession. Arnold St. Linger, of the Seeton Studio, took moving pictures of the outing.

A lively baseball game was one of the features of the occasion. A real battle between the electrical and gas departments was staged. "Buster" Lucy, of the electrical department, took the mound first, but was pulled out of the game in the second inning. He struck out five men out of the first six at the bat. The gas "bunch" would not play unless he was "pulled" out. So he was. In the third, "Joe" Clark, who played on "Buster's" team, hit a pretty one, a homer, bringing in Lucy, who was on first base at the time. The electrical department walked off with the game to the tune of 8 to 2. The game took up a good part of the morning session.

Throughout the day, those who did not participate in the sporting events, enjoyed swimming, boating and canoeing about the lake, and dancing in the pavilion. William Doyle, well known local pianist, furnished the music. A standing buffet luncheon was served all day. The noon dinner was one of the best yet, all enjoying it, with appetites whipped keen through acquaintance with the fresh pine-scented air and the breezes from the lake.

"Tom" Collins, director of public relations for the company, known to all employees as "T. J.," supervised the whole event and was kept more than busy seeing that everything went off per schedule. "Dan" Decourcy was his able assistant and appeared to be in a dozen places at a given time. The president of the company, Irvin McDowell Garfield of Boston, was among those present and keenly enjoyed fraternizing with the help.

Pacific Gas Company Plans Capital Change

Stockholders to Act on the Proposals of Oct. 11—Sale of Stock to Employees

New York, N. Y.—Stockholders of the Pacific Gas and Electric Company will meet Oct. 11 to approve a division of common and preferred stock. The plan calls for a four-to-one division of the two kinds of stock through reduction of their par value from $100 to $25. In respect to par value, voting rights and dividends, one share of the old stock will be fully equivalent to four shares of new stock for which each share of the old stock may be exchanged.

The stockholders also will vote to eliminate from authorized stock capitalization $100,000 par value of original preferred stock and increase correspondingly the authorized amount of first preferred stock. It was explained that as all of the original preferred stock heretofore outstanding had been surrendered and exchanged for shares of first preferred stock, there was no need for the former stock in the company's capital structure. The present authorized stock capitalization of $160,000,000 will not be increased by the adoption of this proposal, but will be divided equally between first preferred and common stock.

A third measure for the stockholders to approve will be the issuance and sale to employees of not more than $2,500,000 par value of first preferred stock and $2,500,000 par value of common stock.

After giving effect to the proposed change, the capitalization of the company will consist of 6,400,000 shares of $25 par stock, divided into 3,200,000 shares of 6 per cent first preferred stock and 3,200,000 of common stock.

Denver Company Forms Pioneer Club

Denver, Colo.—The Pioneer Club has been formed by the employees of the Public Service Company of Colorado, and when the folks use the word "employee" they start with Clare N. Stannard, vice-president and general manager who was very active in the formation of the club, calling the meeting to order.

It was not a question of title, salary or outside fame that permeated the atmosphere at this club meeting, but it was a case of old time friends in a common cause getting together to perpetuate, as it were, and to prove to those who come after just what grand things can be accomplished by cooperation. Titles were forgotten, it was the man. Thirty-six of the old timers have a combined service with the company totaling 1,220 years. M. E. Malone tops the list with 56; Edward P. Gartland, 48; John Conlon, 44; A. Bellringer, 42; Charles Klewer, 41; Steve Horan and William Phillips, 39 each, and William C. Mount, 38, and so on down, but not far down. There were thirty-three charter members. In the election of officers, Edward P. Gartland was elected president; F. A. Tawksbury, vice-president, yet those who were not placed in office have the same feeling, the same desire as has actuated them all along and that is friendliness, cooperation and general well wishes, all of it sincere. This is as it should be.

* * *

Central States Gas Co. Sold

Eldorado, Mo.—Sale of the Eldorado Gas Company, its affiliated company, the Central States Gas and Electric Company of St. Louis, and a subsidiary, the Norphlet Gas and Water Company, owned by W. A. Busch and associates of St. Louis, to a group of Eldorado financiers headed by George W. James and Hopkins Wade has been announced. The consideration was understood to have been more than $600,000.

Central N. Y. Power. Co. Gets Franchise

Canastota, N. Y.—The Central New York Power Company, subsidiary of the Adirondack Power Corporation, has obtained from the official board of Lenox township a franchise to lay gas pipes on any highway in the town.

The franchise will pave the way for a trunk line of gas pipe between this village and Oneida. Work will be started immediately on the line, which, according to present plans of the company, will pass through Wampsville.

It is intimated that eventual abandonment of the Canastota gas plant, which has been in service since its construction a quarter of a century ago, is the purpose of the company. A prediction that a new system of gas supply, resembling the present distribution of electric power from large central stations to surrounding communities, is to be put into effect, indicates that Canastota may be supplied from Oneida after the passing of the local plant.

Construction of the pipe line has been started, and supplies and machinery to be used on the job are arriving daily. Pipe has already been placed along the Seneca Turnpike, and entrenchment work will start as soon as possible.

In applying for a franchise to the town board, a representative of the concern stated that the construction of the pipe line did not indicate immediate abandonment of the local plant. Years might elapse before Oneida is made the center of distribution. When the local plant was installed it was understood that it was capacitated to supply several communities the size of Canastota.

* * *

Luzerne Gas Merger O. K.'D

Harrisburg, Pa.—The State Department has approved the merger of the Pittston District, Luzerne Gas Light Company, the Pittston District, Luzerne Gas Company, the People's Light Company, of Pittston and the People's Gas Company, of Exeter. The new corporation is to be known as the People's Light Company of Pittston, with a capital of $600,000.

Gas-Heated Home Is Pride and Delight Says Sophie Kerr

One of the main sources of joy in her home is its gas heating system, according to Miss Sophie Kerr, well-known woman writer. Not only is everything arranged in a charming and alluring fashion, but the practical features are such that it is a real joy to live in such a home.

"Descend to the cellar with me and behold my furnace," says Miss Kerr. "It is a nine-burner gas furnace. I love that furnace almost as much as I do my garden, for it is a mighty symbol of independence.

"My butler—he is really a combination butler and houseman—stages a feud with the cook, and shortly thereafter departs on a Saturday evening in the dead of winter, when it is impossible to get another man before Monday and when I must have heat. Does it matter to me—vitally, that is? Not at all. I can run that furnace myself as easily as I can run a cooking stove. I go down into the cellar, I turn on two or three or four, or maybe five burners, if the weather is very cold. When the house is warm, I go down again and turn off a couple and leave it thus to maintain the heat. But if I had to shovel coal, to shake the grate, to manipulate dampers and dispose of ashes—ah, that would be a very different story!

"'But isn't it fearfully expensive?' I am continually asked. No, it isn't. If it is kept clean and in good order, it costs no more than coal. It eliminates all the dirt and fuss of ashes, the expense of having them taken away, the nuisance and uncertainty of getting coal at all, and in a house where no houseman is employed, the wages of a furnace man. Gas is not costly in New York City, and the heat is so quick and so simple to regulate that a child could do it.

"I have the most complete, best arranged, most livable and most attractive house in New York City, and it is not for sale or rent."

Making up her mind to buy the house in fifteen minutes, she later had some misgivings about the wisdom of her decision. Visits to the house and knowledge of the gas heating system reassured her, however, that the house was even more alluring than it appeared to be during that first quarter-hour visit.

A Gas Song from the Isthmus of Panama

To Be Sung at the Reception At Atlantic City

Colon, Panama.—The locally famous song, "Gas, Gas, Gas," may become a second "Yes, We Have No Bananas," if plans now under way materialize, it was learned from a reliable source yesterday. There is no reason to believe that the plans to popularize the gas hit in the States will not be carried out, for the work of publication is being undertaken by the American Gas Association, a cooperative organization with more than 1,600 company members in the United States and Canada, it is said.

According to information obtained yesterday from a friend of the composers of the song, the American Gas Association is having 2,000 copies printed immediately. A copy will be sent to each company member with an invitation to order additional copies, the preliminary step is said to be. The song will be sung at the association's president's reception and dance on the Million Dollar Pier in Atlantic City during the annual convention in October.

But the plans to put the song over do not end there. An effort will be made to have it put on the general market by the music publisher. Every effort is to be made to have the song "plugged" at the leading hotels, on the music hall stages and over the radio, it is understood.

As Isthmians know, the gas song was composed by S. Paul Vecker, vice-president and general manager of the Panama-Colon Gas Company, and Lew Ward, director of Lew Ward's Union Club Orchestra and several other musical organizations. It made its appearance during the carnival last Feb-

ruary and it was an instantaneous hit. It proved to be a very popular dance number at the Union Club dances.

Asked regarding the publication of the song in the States, Mr. Vecker yesterday refused to make any comment. He reluctantly admitted that he "believed" something was being done about bringing it out as a popular song but he would not commit himself further.

The words of the song are:

"Johnny was a salesman for a gas company,
Selling stoves and ranges was his specialty,
He had a way of talking that made the ladies fall,
He took them out a-walking whenever he'd call, and

(CHORUS)

All he'd ever do was gas, gas, gas!
He'd be gassin' all the day.
He could tell a story, oh so grand,
He could stretch it very long
Just like a great big rubber band, and
He was always working fast, fast, fast!
He'd never let a day go past.
Now he's the kind of a fellow that you'd like to meet,
He'll stop and flirt with red hot mamas on the street.
'Cause he knows that if it can be done with heat,
It surely can be done with gas."

With snappy words and a catchy tune, "Gas, Gas, Gas" has every chance of becoming as great a hit as the "banana" song, a favorite a few seasons ago and one of the best boosters, incidentally, for the banana trade. Inasmuch as the composers of the gas song are prominent Isthmians, the publication date of the song will undoubtedly be watched with interest.

* * *

Ramapo Gas Absorbs Suffern Gas Co.

Albany, N. Y.—The Public Service Commission has authorized the Ramapo Gas Corporation to take over the franchise, works and other property of the former Suffern, N. Y. Gas Company and to issue securities to pay for the property, $145,000, and for proposed new construction to improve the service by the company in Suffern.

News from New England

Taunton, Mass.—The Taunton Gas Company has secured a franchise to furnish gas in the Town of Walpole and is said to be after a franchise in Wrentham. The securing of a franchise in Wrentham would give the company all of the towns in the Southeastern corner of Massachusetts, with the exception of North Attleboro and Plainville.

Boston, Mass.—The Blackstone Valley Gas & Electric Company, through its transfer agent, Stone & Webster, Inc., has declared Common dividend No. 56, (shares —$50 par value) of $1.25 per share, payable September 1.

Montpelier, Vermont.—The Vermont Public Service Commission has given an order to the Twin State Gas Company to issue 946 shares of seven per cent prior line stock.

Hartford, Conn.—According to the Connecticut committee on public service information, the field of the gas industry in Connecticut is expanding despite the fact that only a decade ago, it was generally looked upon as a dead industry. Last month service was extended to the Sound Beach section of Greenwich for the first time in history. By September a large portion of Greenwich, which covers a widespread area, will be enjoying gas service for the first time and applications for new service are pouring in far in excess of the number originally estimated. During the past two years, gas service has been extended to 76,940 new customers in Connecticut, while a large increase is also taking place this year. It is estimated that of the million and a half people who now reside in this state, about 1,350,000 enjoy the use of gas in their homes. This large growth of the gas industry in Connecticut is due to the use of gas as a heating fuel for cooking, room heating and industrial heating. The total number of meters in the state today, including both residential and industrial meters, is about 270,000. Not only is the number of gas users increasing annually, but the use of the gas is also increasing. Connecticut people burned 185,000,000 more cubic feet of gas in 1925 than they did in the previous year, the total consumption of the state for 1925, having been 7,585,000,000 cubic feet of gas. Gas today is well established as the universal cooking fuel and is gradually coming into its own as a heating agent for home and industries.

Putnam, Conn.—Frank G. Dean, for the past year connected with the gas departments of the Putnam Light and Power Company and the Danielson and Plainfield Gas and Electric Company, has resigned, to accept a responsible position with the Barstow Stove Company of Providence, R. I. In his new position, Mr. Dean will have charge of the sales of Barstow products to gas companies throughout New England, also act as consulting engineer in the construction of gas ranges.

Clinton, Mass.—New sales were recorded at the display rooms of the gas appliance department of the Clinton Gas Light Company, Friday, August 13, when the corporation allowed a 13 per cent discount on all ranges sold on that day.

Hampton, N. H.—The Hampton Gas Company, Hampton, has filed a voluntary petition in bankruptcy in the Federal Courts of New Hampshire. The schedules disclosed liabilities of $14,355.95 and assets of $2,535.60. The largest creditors are: Haverhill Gas Light Company, Haverhill, Mass.; John Cashman, Haverhill and Thorp & Branch, Manchester, N. H.

Gas Man Talks on House Heating

G. A. Wieber Urges Use of Gas—Advantages of Newest Method for Homes Are Set Forth

Utica, N. Y.—The use of gas for home heating was the subject of the address George A. Wieber, commercial manager of the Utica Gas & Electric Company, recently gave to members of the Exchange Club.

"It is not so much what is the cheapest, but which is the most conducive to health, convenience and cleanliness, that one should consider in choosing the fuel for his home," he said.

"Gas may be used for all forms of heaters, hot air, hot water, vapor or steam, with equal efficiency," he said, "and in this territory there are already 100 heating plants in operation or contracted for.

"At the present time," said Mr. Wieber, "with most of our houses being constructed on about the same lines that prevailed a century ago, the average domestic heating plant is engaged in the wasteful task of heating thousands of cubic feet more air than is necessary.

"By employing a proper plan of insulation, the radiation can be reduced to less than half of what it is today. It is almost unbelievable that while engineers have gone ahead with the work of trying to build more efficient heating plants, practically nothing has been done until recently to build houses in such a way that heavy heat losses would be reduced.

"Builders of homes today are aware that gas usage assures a steady supply of fuel; freedom from worries of the coal strikes and the resulting wild fluctuations in the cost; elimination of storage space and expenses; the banishment of dirt, soot and ashes; multiplication of comfort and convenience."

Federal Gas Company Merged With Public Service

Boulder, Colo.—The Federal Gas Company, purchased a year ago by the Public Service Company, lost its identity on August 15. The gas company operated under the name of the Public Service. The merger included the Poudre Gas Company which was purchased about the same time.

* * *

Mohawk Hudson Power Corp. Increases Capital Stock

Albany, N.Y.—Mohawk Hudson Power Corporation, Albany, today filed a certificate in the office of the secretary of state increasing its capital stock from 2,150,000 shares to 3,150,000 shares non par value.

* * *

Penna. Power Co. May Buy Gas Co.

Hazleton, Pa.—The Pennsylvania Power and Light Company have taken a 30-day option on the plant of the Mauch Chunk Gas Company. Purchase of the plant will depend on a report to be made by the staff of auditors of the company who began work yesterday on the books of the company.

It will be to Mauch Chunk's advantage to have the Power Company operate the gas plant as the concern now operates the electric light plant and the street railways in that town.

Public Service Puts in New Equipment

New Brunswick, N. J.—Public Service Electric and Gas Company is having installed in its new Harrison Gas Works a new type of purifying equipment. Two distinct refining processes will be used, one for removing tar, the other for taking out sulphur.

Removal of the tar is accomplished by pumping the gas through an electrically charged chamber where the small tar and water particles are thrown against vertical walls. Thence they flow by gravity to the bottom of the chamber and out to the tar separators where the tar is recovered.

Elimination of sulphur is brought about by passing the gas through a solution of carbonate of soda in a cylindrical tank. Sulphur in form of hydrogen sulphide is absorbed by the solution which flows from the base of the tank to a plant which recovers the sulphur in cake form.

The gas then goes through a third cleansing process. It is pumped into iron oxide purifying boxes to insure the complete removal of hydrogen sulphide. From these boxes the gas goes to the storage holders to be distributed as needed.

L. E. Fischer Appointed Vice-President North American Light and Power Co.

Chicago, Ill.—L. E. Fischer, of St. Louis, a well known transportation and public utility executive, has been appointed vice-president in charge of operation of the North American Light and Power Company, according to an announcement by Clement Studebaker, Jr., president of the company from his offices in Chicago.

The North American Light and Power Company has recently been reorganized, but its properties will continue as heretofore to be operated as a separate entity, under its president, Clement Studebaker, Jr. It serves 700 communities in Illinois, Iowa, Missouri, Kansas and Nebraska with electric light and power, gas and other utility services, as well as owning the Illinois Traction System, a trunk line electric railway operating 550 miles of interurban line in the state of Illinois, with terminus at St. Louis.

The new operating executive of this large public utility group is younger in years than in experience. He was the first general manager of the Illinois Traction System, which railway with its supplemental group of public utility properties was under his management from 1903 until 1909. The experience which fitted him for the executive official of the Illinois Traction System at the age of 27 years included preliminary

training in the St. Louis Manual Training School, a B. S. and C. E. degree at the University of Illinois, a term as assistant city engineer at Kewanee, Ill., also as city engineer at Paris, Ill., and later as superintendent and manager of the Danville electric, gas and street railway properties of the Illinois Traction System at Danville, Ill.

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Contracts Awarded

The Western Gas Construction Company has been awarded the contract for the furnishing and installing of eight and one-half miles of high pressure piping between the cities of Oneida and Canastota, N. Y. This contract was placed by the Utica Gas and Electric Company of Utica, N. Y.

The Western Gas Construction Company has been awarded the contract for the furnishing and installing of two cast iron purifiers with necessary connections and elevator for New Bedford, Mass. The contract was placed by the New Bedford Gas and Edison Light Company.

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Gas Company in Denver Holds Its Annual Picnic

Denver, Colo.—August 11 looked like a very dull day around the Public Service Company of Denver, Colorado, but out at Lakeside Park, Clare N. Stannard, vice-president and general manager with his aides had gathered together every employee who could be spared and together they held the annual picnic. The Doherty band was there, so were the baseball teams, the Doherty Junior fraternity beating the officials of the company 8 to 6.

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FINANCIAL NEWS

Columbia G. & E. Limit

The listing statement on the certificates of deposit for one and one-half million shares of the Columbia Gas and Electric Company to be issued in connection with the merger of that company with the Ohio Fuel Corporation, states that the time for depositing the shares under the merger will expire Sept. 15. The plan provides for the new company to start dividends from Nov. 15, next.

Assd. Gas Makes Offer

The Associated Gas & Electric Company has renewed its offer to purchase the holdings of common stock of the Pennsylvania Electric Corporation. The Associated Company now owns more than 99 per cent of the stock in the Pennsylvania Company. As an alternative to selling, individual owners may exchange their stock, share for share, for 7 per cent preferred stock of the Associated Company.

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Assd. Gas & Elec. Income

Associated Gas & Electric Company system for twelve months ended May 31, 1926, shows surplus, after all charges, depreciation and preferred dividends, of $2,048,783 available for Class A priority dividends, against $877,026 in the preceding twelve months.

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Iroquois Gas Extends Service

Albany, N. Y.—The Public Service Commission has authorized the Iroquois Gas Corporation to extend its system into the towns of Colden and Boston, Erie County, and serve residents there with gas for light, heat and power. This authorization is subject to the terms of consents given by the town boards, the Commission finding that the extension of gas service is necessary and convenient for the public. There was no opposition to the petition at the hearing before Commissioner Pooley.

Gas Companies Advertised Scholarship

Baltimore, Md.—Great interest is being shown in the scholarships for the gas engineering course of the Johns Hopkins University, Baltimore, Md. This is a four year course, and forms a complete training in all the fundamentals of engineering and chemistry, with special reference to the technology of gas. The course is given under the auspices of the engineering faculty of the Johns Hopkins University.

Scholarships are worth $350 a year and cover the payment of tuition, laboratory fees and other incidental university expenses. All appointments are for one scholastic year, and appointees are reappointed if they have maintained a satisfactory grade during the past year and conform in all respects with the standards and requirements of the university.

Many gas companies have advertised these scholarships, indicating their underwriting of the same. This is a very laudatory movement and one that reflects considerable credit upon the gas companies that have subscribed to it and on the industry as a whole. It may be mentioned that the Consolidated Gas, Electric Light & Power Company of Baltimore, Md., has undertaken to finance two scholarships and the Washington Gas Light Co. of Washington, D. C., one scholarship; Philadelphia Suburban Gas & Electric Co. of Chester, Pa., one scholarship, while various other companies have also taken part in this movement.

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Jersey Gas Co. Asks Increase in Gas Price

Boonton, N. J.—The Central Jersey Power and Light Company, which recently took over the Boonton Gaslight and Improvement Company's holdings, has filed an application with the Public Utilities Commission of New Jersey for permission to raise the price of gas from $1.60 to $1.90 per 1,000 feet. The application asks that the proposed rate be made retroactive to August 1. More than 25,000 residents of Boonton, Dover, Rockaway, Mountain Lakes and nearby towns are interested.

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Southwestern Takes Over Commanche Gas Property

Quanah, Tex.—Purchase of the Commanche Gas Co. properties in July makes a total of six gas properties now operated by the Southwestern Gas and Fuel Co., subsidiary of the Southwestern Light and Power Co. Other cities served are Lawton, Temple, Altus, Marlow and Duncan.

The high-line of the Southwestern Light and Power Co. from Quanah, Tex., to Agatite and Acme are to be reconstructed to carry the heavier loads demanded by increasing development of this territory.